

IN THE CLAIMS:

Claim 1 (canceled)

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Claim 2 (currently amended): A video coding apparatus for coding a video picture by the use of motion compensatory prediction of each of video pictures with respect to sequentially input video signals, the video coding apparatus comprising:

one-way coding (P) frame interval decision means for deciding a P frame interval for carrying out motion compensatory prediction coding based on the motion features between timewise adjacent frames with respect to the input video pictures, the P frame interval inside the GOP being decided based on the decision by the P frame interval decision means.

Claim 3 (previously amended): A video coding apparatus for coding a video picture by the use of motion compensatory prediction of each of video pictures with respect to sequentially input video signals, the video coding apparatus comprising:

inter-frame variance calculation means for calculating a variance between timewise adjacent frames with respect to the input video signals;

intra-frame coding mode decision means for deciding an intra-frame coding mode based on the variance without using any motion compensatory prediction; and

one-way coding (P) frame interval decision means for deciding a P frame interval for carrying out motion compensatory prediction coding based on the features between time wise adjacent frames with respect to the input video pictures,

ratio -> MP Variance

a GOP boundary position being decided based on the decision by the intra-frame coding mode decision means, and the P frame interval inside a GOP being decided based on the decision by the P frame interval decision means.

Claim 4 (canceled)

Claim 5 (original): A video coding apparatus according to claim 3, wherein the intra-frame coding mode decision means selects an intra-frame coding mode when the inter-frame variance exceeds a predetermined threshold value.

Claim 6 (canceled)

Claim 7 (original): A video coding apparatus according to claim 3, wherein the inter-frame variance is calculated by using at least one of an absolute difference between the input video pictures and a pixel dispersion value of each of small blocks, into which the input video picture is divided.

Claim 8 (original): A video coding apparatus according to claim 2, wherein the P frame interval decision means divides the input video picture into small blocks and carries out simple motion compensatory prediction by the use of a representative value per small block so as to decide the P frame interval.

Claim 9 (original): A video coding apparatus according to claim 3, wherein the P frame interval decision means divides the input video picture into small blocks and carries out simple motion compensatory prediction by the use of a representative value per small block so as to decide the P frame interval.

Claim 10 (original): A video coding apparatus according to claim 8, wherein the representative value uses either one of an average inside the small block and a dispersion value inside the small block.

Claim 11 (original): A video coding apparatus according to claim 9, wherein the representative value uses either one of an average inside the small block and a dispersion value inside the small block.

Claim 12 (original): A video coding apparatus according to claim 2, wherein the P frame interval decision means controls to make the frame interval small in the case where a motion compensatory prediction error is large while controls to make the frame interval great in the case where the motion compensatory prediction error is small.

Claim 13 (original): A video coding apparatus according to claim 3, wherein the P frame interval decision means controls to make the frame interval small in the case where a motion compensatory prediction error is large while controls to make the frame interval great in the case

where the motion compensatory prediction error is small.

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Claim 14 (original): A video coding apparatus according to claim 2, further comprising means for dividing a target video picture into small blocks so as to judge an edge region inside the video picture based on the dispersion value of pixel information on the small block.

Claim 15 (original): A video coding apparatus according to claim 3, further comprising means for dividing a target video picture into small blocks so as to judge an edge region inside the video picture based on the dispersion value of pixel information on the small block.

Claim 16 (original): A video coding apparatus according to claim 3, further comprising coding complexity prediction means for predicting coding complexity in each coding system based on the feature of the video picture inside the GOP so as to control a coding quantity at the time of coding in consideration of the complexity.

Claims 17-26 (withdrawn from consideration)

Claim 27 (previously added): A video coding apparatus for coding a video picture by the use of motion compensatory prediction of each of video pictures with respect to sequentially input video signals, the video coding apparatus comprising:

inter-frame variance calculations means for calculating a variance between timewise

adjacent frames with respect to the input video signals; and

a) intra-frame coding mode decision means for deciding an intra-frame coding mode based on the variance without using any motion compensatory prediction, a GOP boundary position being decided based on the decision by the intra-frame coding mode decision means.

Claim 28 (previously added): A video coding apparatus according to claim 27, wherein the intra-frame coding mode decision means selects an intra-frame coding mode when the inter-frame variance exceeds a predetermined threshold value.

Claim 29 (previously added): A video coding apparatus according to claim 27, wherein the inter-frame variance is calculated by using at least one of an absolute difference between the input video pictures and a pixel dispersion value of each of small blocks, into which the input video picture is divided.
